

What is claimed is:

1. A semiconductor device, comprising:  
a first circuit having a prescribed circuit function;  
wherein a second circuit is formed so as to be able to  
be connected externally to the first circuit so as to give the  
first circuit a non-always-used particular function and to  
thereby allow the first circuit to perform the particular  
function.
2. The semiconductor device according to claim 1, wherein:  
the second circuit comprises an auxiliary function for  
realizing the particular function that has been given to the  
first circuit; and  
the auxiliary function operates only in response to an  
instruction from the first circuit.
3. The semiconductor device according to claim 1, wherein:  
the first circuit is used solely except during operation  
of the particular function.
4. The semiconductor device according to claim 1, wherein:  
the second circuit is configured so as to be able to  
operate solely.
5. The semiconductor device according to claim 1, wherein:

the second circuit cannot be used except during operation of the particular function.

6. The semiconductor device according to claim 1, wherein:  
the first circuit has a function of outputting a control start signal for activating the second circuit and a function of receiving a signal for giving the particular function that is generated by the second circuit.
7. The semiconductor device according to claim 1, wherein:  
the first circuit has a function of permitting operation of the particular function only when detecting electrical connection of the second circuit, and not permitting operation of the particular function and permitting operation of only the prescribed circuit function when not detecting electrical connection of the second circuit.
8. The semiconductor device according to claim 1, wherein:  
the first circuit is a memory circuit and the particular function of the second circuit is a function of writing data to the memory circuit.
9. The semiconductor device according to claim 1, wherein:  
the first circuit comprises a reading circuit for a memory and the particular function includes a circuit for rewriting of the memory.

10. The semiconductor device according to claim 1, wherein:  
the first circuit comprises a redundant circuit that  
is provided with wiring for forming prescribed logic blocks in  
the first circuit, and is configured in such a manner that its  
circuit function is determined by external redundancy setting;  
and  
  
the particular function includes a circuit for setting  
the redundant circuit.
11. The semiconductor device according to claim 10, wherein:  
the first circuit comprises a programmable gate array  
FPGA (field programmable gate array).
12. The semiconductor device according to claim 1, wherein:  
a circuit function of the first circuit is determined  
by connections and disconnections of electric fuses; and  
the particular function includes a circuit for  
connecting and disconnecting the electric fuses.
13. The semiconductor device according to claims 1, wherein:  
the prescribed function includes a circuit for  
performing reading on a memory in the first circuit, and the  
particular function is a function of controlling output of  
information of the memory to an external apparatus.
14. The semiconductor device according to claim 1, wherein:

the particular function includes a testing circuit for the first circuit.

15. A system device, comprising:
  - a first device having a first circuit that provides a prescribed circuit function; and
  - a second circuit electrically connected to the first circuit of the first device, the system device;
    - wherein the second circuit gives the first circuit a non-always-used particular function and to thereby allow the first circuit to perform the particular function.
15. The system device according to claim 15, wherein:
  - the first circuit has a function of outputting a control start signal for activating the second circuit and a function of receiving a signal for giving the particular function that is generated by the second circuit.
17. The system device according to claim 15, wherein:
  - the second circuit has a function of receiving the control start signal generated by the first circuit and a function of outputting the signal for giving the particular function to the first circuit; and
  - the particular function of the second device is activated by the control start signal of the first device, whereby the particular function is given to the first device.

18. The system device according to claim 15, wherein:  
each of the first device and the second device comprises  
an exchange circuit for serially supplying or receiving control  
signals for giving the particular function and a register for  
storing control signals for giving the particular function; and  
signals are serially exchanged between the first device  
and the second device, whereby the particular function is given  
to the first device.
19. The system device according to claim 15, wherein:  
the first device has a function of permitting operation  
of the particular function only when detecting electrical  
connection of the second device, and not permitting operation  
of the particular function and permitting operation of only the  
prescribed circuit function when not detecting electrical  
connection of the second device.
20. The system device according to claim 15, wherein:  
the first device comprises, on one major surface of a  
package, first connection terminals for connection to an external  
circuit, and the second device is formed so as to be able to  
be connected to the first device via second connection terminals  
that are formed on the other major surface of the package that  
is opposed to the first major surface.
21. The system device according to claim 15, wherein:

the first device comprises first connection terminals for connection to an external circuit that extend from side surfaces of a package, and the second device is formed so as to be able to be connected to the first device via second connection terminals that are formed on a major surface of the package.

22. A manufacturing method of a semiconductor device, comprising:

a designing step of redesigning a circuit integrated on a semiconductor substrate so that it is function-separated into a first circuit and a second circuit that is configured so as to be able to be externally connected to the first circuit and to give the first circuit a non-always-used particular function to thereby allow the first circuit to perform the particular function, and so that the first circuit and the second circuit can be connected to each other electrically;

a step of forming the first circuit in a first device; and

a step of forming the second circuit in a second device.

23. The manufacturing method of a semiconductor device according to claim 22, wherein:

the first device is implemented on a single semiconductor substrate and the second device is a system device comprising a plurality of semiconductor substrates.